

# Black Employees Urge IBM To Quit South Africa

By Joseph Hanton

CWS Staff Writer

WASHINGTON, D.C. The IBM Black Workers Alliance (BWA) has urged IBM to withdraw from South Africa because of that country's policy of apartheid (racial segregation) and to meet "in free African nations" instead.

IBM's involvement in South Africa is "tacit support of a repressive minority regime" and reinforces that government's "exploitation and oppression of African People," according to

BWA.

South Africa represents only 0.1% of IBM business, BWA said, and this IBM could withdraw without injury to itself.

Further, only 65 of the 1,000 employees in South Africa are non-white, so IBM cannot claim to be helping the black people of South Africa, declared Jerry L. Valley, chairman of BWA's South Africa Committee. In IBM's official statement on South Africa declares, "We intend to continue this operation because we believe our presence

in South Africa is a positive force for good... good for IBM whites, blacks, and other non-whites, all of whom work under the same salary formula and same company benefits."

BWA has been in existence for about a year, Valley said. Originally a local Washington group, it is now organizing in other cities.

IBM is estimated to have about 9,000 employees in the Washington area, roughly 540 (6%) of whom are black, and BWA represents more than half of these,

Valley said, but he did not give a specific figure.

The group includes all ranges of employees, from secretarial to professional. Valley is a data products salesman.

As an employee organization, BWA had made eight attempts to meet with Thomas J. Watson Jr. before his resignation.

An IBM representative in Washington did offer to meet with the group, but Valley said there was no point in meeting with someone who was not a "decision maker at the corporate

level."

BWA is also concerned with the condition of black workers at IBM, and has unsuccessfully attempted to have several managers fired for alleged racist attitudes, Valley said.

The group also hopes to see IBM hire more black workers and give contracts and aid to more black businesses.

BWA is investigating the impact on black workers of moving IBM plants to the suburbs, Valley said.

Several other large companies, including General Motors, Polaroid, and General Electric, have faced similar challenges from black employees and have refused to withdraw from South Africa.

IBM does not manufacture anything in South Africa, and its operations are purely related to sales and service of office products and computers. Total value of IBM products in South Africa is over \$20 million, he said, and the gross profit for 1970 was 36%, according to Valley.

## User Seeks \$8 Million for 'Malpractice'

(Continued from Page 1)

capable."

CCS states it started in business in 1968, with "its data and systems" produced correctly on Honeywell computers at another service bureau. Then, in 1969, CDC opened a data center "in the immediate vicinity" of CCS's principal office, and, according to the complaint, solicited, and obtained, the business of the credit agency.

Besides the charges of misrepresentation during this phase of the relationship, CCS claims it had to spend "large sums" of money to hire experts to convert to CDC hardware and to correct errors arising from the alleged "erroneous processing."

### 'Changed Operating Systems'

During the year of the business arrangement, CDC "changed its operating systems and computers without giving the plaintiff reasonable notice" on one occasion, the suit charges, resulting in delays and "additional expense... in reprogramming its data" to be compatible with the "alterations" in the CDC system.

Personnel changes also allegedly resulted in CDC's "inability to effectively and economically perform" the contract, and CDC "submitted bills... for computer time used in correcting"

its own errors and for other charges "not justified by the contract," the suit claims.

The credit agency paid the "just charges" for services, but tried to adjust these "disputed" charges, according to the 22-page complaint. In November, 1970, it continues, CDC demanded full payment for the past bills and "cash" for future work.

The plaintiff refused to pay, and CDC exercised the 30-day cancellation clause in the contract and terminated the agreement.

### Damages

The \$8 million suit is composed of alleged actual damages of \$5 million, a petition for \$1 million in indemnification from actions by CCS's customers, and \$2 million in exemplary damages. There are eight different counts.

The "malpractice" count stems from a charge that CDC had allegedly failed to maintain "any reasonable degree of professional efficiency" and was "ignorant of the methods, programs and production" of the software adaptable to CCS's business.

### 'Implied Warranty'

CCS also claims the manufacturer had perpetrated a breach of an "implied warranty" that

the DP equipment was "suitable for the use intended... so that there was both a failure and a lack of appropriate material or equipment and workmanship," resulting in CDC's alleged failure to "produce the computer business product it had offered."

Another count charged negligence, in CDC's alleged failure to

exercise "the ordinary care and diligence of the computer industry" in serving the credit agency's business products, resulting in "a multitude of errors," and the alleged destruction of business.

The indemnification required states customer lawsuits could arise from these errors.

## Mapping Aids Food-Stamp Program

(Continued from Page 1)

of how this system has been useful. To distribute federal school lunch money, the city must know how many school age welfare children there are in each school district.

The Board of Education has planned to pay \$50,000 to determine this data, Savas said. But with the system, the city used computerized welfare files as a base and produced the required data with eight hours of 360 data time.

### Location of Office

The map on page 1, showing the density of welfare recipients in city health districts, was used to plan the location of a new welfare office.

It was also used, according to Savas, to provide advance guidance to banks when they began

selling food stamps because the number of welfare recipients in a district gave an estimate of the business a bank could expect. Producing the maps for the entire city took about nine hours of computer time.

Gist (Geographic Information System) was developed by the city in two and a half years for \$250,000 and is based on commercial mapping packages such as the Harvard Graphic Science Lab's Symap. Two-thirds of the cost was paid for by the Federal Government (Departments of Defense and Transportation).

### 50,000 City Blocks

The system has a data base of each of the 50,000 city blocks, listing street names and home numbers, census tract numbers, tax assessors' numbers, health areas, planning areas, and zip

codes.

Input data is usually information which has already been computerized for some other purpose, such as addresses of welfare recipients or building locations from tax records.

A 360/40 sorts the data into geographic regions at about 50,000 records per hour on a 360/40. Maps take six to 15 minutes to print.

Other uses of the system include:

- Listing cigarette vendors geographically to improve tax collectors' routes.

- Producing maps showing the distribution of emergency ambulance calls as part of a study of proposed satellite ambulance stations.

- Producing maps showing land use to study the effects of tax policy.

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# DP Facilities Urged as Basis for College Accreditation

HANOVER, N.H. Any college or university which fails to provide decent computing facilities for undergraduates should be denied accreditation, according to Dr. John G. Kemeny, president of Dartmouth College and computer pioneer.

"A decent computing center for educational purposes is as important an element for under-

graduate instruction as a decent library," he said. Accrediting teams deny recognition of universities which "fail to provide [a decent library] service," he stressed.

Kemeny made his remarks before 1,200 college professors attending a three-day conference at Dartmouth, on "Computers in the Undergraduate Curricula."

At the majority of the nation's colleges, most undergraduates never actually use a computer in their four years, he said.

"As a result, we find students who are a whole era out of date," when their use of computers "could mean the difference between being in the dark ages or in the modern age."

Kemeny was critical of the Federal Government and of other college presidents who failed to support the development of computing.

The co-developer of the nation's first educational time-sharing system said the government has failed to provide financial support to higher education for expansion of existing computer centers, and for the creation of more centers as recommended

by the President's Science Advisory Committee in 1967.

"The government has only provided 10% of the support recommended in that report," he declared.

He also chided university presidents for failing to provide support for adequate computing capability on their campuses because until now computing was an "esoteric" discipline.

## Experts at Fault, Too

Computer experts themselves must share the blame, he stated, for they designed "too many computers for large research projects and had 'little or no hospitality' for relatively small tasks of students and individual faculty members.

Reflecting some laymen's com-

plaint that technologists would try to replace people with computers, Kemeny said there are

"certainly many areas in which the computer can supplement both the book and the teacher," but he knows of "no genuine

application where the computer can replace either."

Kemeny called on colleges to make significant contributions to mankind by training people to use the computer to solve complex systems problems.

In contrast to Kemeny's criticism of some of the "use, non-use, and abuse" of computers in higher education, a college official noted nearly 90% of Dartmouth's 3,800 undergraduates and graduate students gain hands-on familiarity with computing.

## Clerk Court Cites Statute Change In Appeal for DP to Collect Fines

NEW BEDFORD, Mass. Local police have apparently slowed down issuance of traffic tickets because the county court is having difficulty enforcing the collection of fines without a computer.

Third District Court Clerk H. Ernest Dionne said he had petitioned the state legislature for funds for a small-scale computer, but his request has not been acted on for at least two months.

The request is being considered by the Committee on Courtes, he reported.

With a change in state statutes, which eliminated two "free" traffic tickets, the amount due in fines for a month has jumped from \$600 to \$3,500, Dionne stated.

Dionne said he needs a computer or "six or eight more people" if he is expected to perform the collections.

The police will resume strict ticketing when they are assured the fines can be collected, he suggested, adding New Bedford might realize as much as \$80,000 to \$100,000 in traffic fines, if he could fully enforce the statute.

Legislative reluctance is centered around a contention that (Bristol) County funds should not be used for a project that would benefit a municipality. In this instance, New Bedford would receive the fine funds, as occurs in nearby Fall River and

Brockton. Despite the fact that Fall River is also in Bristol County, it managed to obtain funds for a computer for the same purpose, Dionne contended.

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# Illegal Bills May Draw Fines

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be done by a code number explained elsewhere on the bill). Itemization is not required, according to McDonough, if purchase receipts or credit card slips are included with the bill and are clearly marked itemizing date, amount, and purchase.

• Other charges, such as minimum or per item charges, itemized and explained.

• Amount paid during the billing period, labeled by the word "payments."

• An itemized list of all credits, such as returned merchandise, with an explanation of each credit. Again a code may be used. The word "credits" is required.

• The closing date of the billing cycle and the outstanding balance on that date, using the

words "new balance."

## Finance Charges

Rules regarding finance charges are also complex. "Finance charges" must be identified by those words. Interest rates must be given both as an annual percentage rate and as a percentage rate for the billing period (usually monthly) and identified by the words "annual percentage rate" and "periodic rate." If there is more than one rate, they must be itemized and explained.

The balance on which the finance charges are computed and the method of determining that balance must be listed. The period during which payment can be made without incurring new finance charges must also be given.

The required words "finance charge" and "annual percentage

rate" must be more conspicuous than the other required words. According to McDonough, on preprinted bill forms this can be done with a larger or bolder typeface, and on computer printed bills this can be done by putting the bills in quotes or underlining them.

The rules also specify a long list of information that must be given to a person when he gets his credit card.

Details of the Truth in Lending law and Regulation Z can be obtained from any regional FTC office.

McDonough suggested that if a service bureau does not want to take on the responsibility of changing the billing procedures, it should tell the retailer the billing is illegal and changes are required.

## News Wrapup

### N.Y. Law Sets DP Dating Guides

**ALBANY, N.Y.**—A bill resulting from an investigation by the Bureau of Consumer Frauds and Protection revealing evidence of fraud by computer dating firms has been signed by Gov. Rockefeller. The bill, S. 120, dating firms will be limited to charging a client \$250 for services, and must give a specified number of referrals each month. The client may cancel the contract if the firm fails to produce that number of referrals, two or more consecutive months. The life of the contract is limited to two years. Also, upon termination, the company must return to its client by certified mail all personal information.

The bill was sponsored by Sen. Ralph J. Marino, E. Norwich, and Assemblyman Milton Jones of N. Merrick.

### Three Mass. DP Dating Firms Restrained

**BOSTON**—Three computer dating companies operating from the same local office have been temporarily restrained from doing business, and the state attorney general is seeking a permanent injunction and restitution of funds to allegedly defrauded consumers.

Attorney General Robert H. Quinn said his consumer protection division obtained the court order after a three-month investigation revealed that the firms were not using computers to select compatible couples, as the companies had claimed.

Two of the firms were Compulink Plus and Meet-Mate, subsidiaries of the third, Compulink International.

In announcing the court order, Quinn estimated the companies had obtained more than \$150,000 from state consumers through deceptive computer dating services.

### 60% Complete Package Bought by Seller

**CAMBRIDGE, Mass.**—A week after it first tried to auction a "60% complete" mutual fund shareholder accounting package, Asset Management finally sold the system.

The buyer? Asset Management. The successful bid? The same \$20,000 bid by Asset the previous week, which was challenged by other prospective bidders as unjustified and a waste of the very scarce information given the public about the system [CW, Jan. 30].

None of the previous week's bidders were there the second time around, but if they had been, they couldn't complain about a lack of information. An Asset spokesman said in an hour and a half describing the system to the two bidders who were present. Then the auction began and there was one bid. Asset's.

### Age of Computers Marks 20th Anniversary

**WASHINGTON, D.C.**—It all started with the census, as they say, and last month marked the twentieth anniversary of the dedication of Univac I, the first commercial electronic computer.

After its dedication June 14, 1951 at the Bureau of the Census, Univac I was put to work completing the 1950 census. Designed by Dr. J. Presper Eckert and Dr. John W. Mauchly, the unit had a speed of 1,000 calculations per second, and programs were changed by using different tapes of tape, without rewiring. Parts of the Univac I retired by the Department of Commerce in 1963 after over 73,500 hours of operation, now rest in the Smithsonian Institution.

### DP Has Difficulty Digesting D.C. Tags

**WASHINGTON, D.C.**—"Vanity" or personalized license plates seem to be special as far as the Washington, D.C. Department of Motor Vehicles' computer is concerned. Although listings of the plates is a matter of public record, according to the department's deputy director Herman J. Hild, the only reason he doesn't have those personalized tags available—yet—is that he haven't figured out how to get the computer to digest them and use them.

Introduced as a money-making effort, the district has issued about 8,000 vanity tags, Cole said, but added, "I sometimes get the feeling we've put more than \$200,000 worth of time and effort into issuing them and keeping records on them."

## Video Gear Amortized by User Training

(Continued from Page 1)

"In my 10 years in training supervision, I've been consistently plagued with waiting for an external training center to match my needs as to courses and time schedules," Jolly remarked.

"A center serving a wide geographic area couldn't possibly accommodate its scheduling to any one company's pace," he

added. "On the other hand, a one person can start a VAI course this afternoon, next week, or whenever he is ready."

United turned to VAI within six months after IBM unbundled, and currently has an inventory of 14 video-tape courses.

United has also produced some in-house courses for use on its Univac computer, Fulton reported.

He said he hoped ASI would help the airline market its Univac programs, relieving users of the need of having the manufacturer determine the quality of the course, the size of the class, or the speed of progress. Univac, he said, is still bundled.

Video tape recorders and monitors are installed at UAL's four computer services departments, the two here, plus one at maintenance headquarters in San Francisco, and the other in Denver.

Besides immediacy and convenience, cost is a major factor. Last year, 611 UAL employees received almost 12,000 hours of VAI instruction, according to Jolly.

Claiming most managers estimate outside DP training costs at \$10 per student hour, plus time away from the job, plus employees' reimbursable expenses, Jolly was more than willing to compare UAL's expenses of less than \$25,000 with VAI to the estimated \$118,000 for

vendor-supplied enrollment fees.

Any firm seeking to train as few as five employees in one subject can recover the cost of video equipment and a taped course, he said.

The equipment for one training station will be \$950 and a 40-hour taped course will be about \$750, he explained. Comparing these figures against 200 man-hours (five employees at 40 hours), "you're money ahead," with VAI, he declared, plus you own the gear and tape.

New topics or highly-specialized areas that might be studied by very few trainees would be areas not taped, Fulton said.

He noted the preponderance of VAI courses are on subjects formerly offered free from IBM. Some of the new courses even use IBM programmed texts as instructional aids. IBM sells the texts, and places no restrictions on their use.

Another benefit of this form of training in personal supervision and monitoring of the transition from programmer to analyst, which "isn't always successful," Jolly observed.

"We get faster warnings" of problems in this area, he surmised. This has enabled UAL to reduce the training cost of "those who don't work out of the system analysis track," he related, by ending their training when it appears the transition will not work out.



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# No Client Files, But Welfare Computer Prints Checks

By Edward J. Bride

**BOSTON**—After spending nearly three years and more than a half-million dollars on planning for the Welfare Department's utilization of computers, the most sophisticated application the state has implemented is the printing of checks for nursing homes in the Boston area.

The printer is also used to pay welfare recipients their regular assistance checks, but there does not exist the ability to check on recipient or vendor eligibility, or to verify that fees charged by welfare service suppliers (vendors) do not exceed those allowed by law.

These are two of the revelations in a study recently completed by three unemployed computer experts, at the request of the Massachusetts House of Representatives (CW, June 23).

The state is simply "not getting its money's worth" from its computers, House Speaker David M. Bartley charged, calling for "new staffing and necessary new approaches" to administer the Welfare Department's computer.

The Welfare Department leases an IBM 360/40, which replaced a 30 last spring. The department has used computers since before the state took over welfare payments from the cities three years ago, but file maintenance is lacking, sources report, and there is still no capability to trace recipient history by name.

The house-commissioned report, and a summary report conducted a year ago, agree that a

master file capability is needed, so cross-checking of eligibility and payment history can be conducted.

The house report outlined the two facets of such a system: the "elements" and the "operation." The elements were simply the files (recipient, vendor, and fee schedules), the hardware and peripherals, the programs, the data preparation equipment, and the forms and operation procedures.

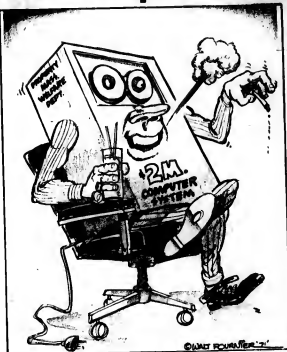
## Double Check, Cross Check

The five-step operation proposed by the study group would include: vendor invoicing after performing a service; transcription by key-tape or similar equipment; processing the claims using the three files; check printing and forwarding; and records maintenance and report generation.

The processing would also include cross-checking recipient eligibility, vendor authorization to provide the service, and checking the fee charged with the authorized schedule. A duplicate service test would also be performed, to insure the service had not already been paid for.

The inability to conduct cross-checks and the lack of master files were seen as the chief deficiencies in the computer system, while lack of management was cited as the ultimate factor in the "floundering" of the department.

Bartley is working on a 90-page report which will summarize the house study and propose five



new non-civil-service EDP positions for the Welfare Department.

He will reportedly ask for \$100,000 to staff these DP posts, the nature of which will be "strictly up to the commissioner," according to Bartley's Administrative Assistant John T. Eller.

The basic contention, that over a half-million dollars has been wasted because there still exists no overall software system and no long-range planning, is accurate and has not even been challenged since it was put forth to the public June 14, Eller said.

Despite a study made a year ago by the Bureau of Analysis,

Data Processing and Telecommunications, the only computerization which has been effected is the printing of checks to nursing homes.

Even this one system is not suitable as a prototype for a state-wide system, since it does not provide for recovery capability, record updating at local service offices, or report generation, the study revealed.

While the inability to create a complete file by client's name has been labeled a "chief" defect, a vendor-payment backlog is running a close second.

A consulting firm was brought into the state last year to clear up that problem and reduced it by half, but, according to the house report, "no plans are presently outlined to reduce the remaining backlog."

Proposals to pay druggists' bills by using an outside service agency were discouraged by the study, which instead recommended the department "contract with an outside company to build the same system for the department's own use."

The study team also called for the separation of day-to-day functions from long-range planning, plus the establishment of an assistant commissioner for data processing and a Project Management Office.

"Regardless of whether the separation we suggest takes place," the report continued, "it is clear that the department is significantly under-staffed in terms of professional EDP personnel."

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# Idaho, Univac Disagree; 494 Sits Unused

CW Midwest Bureau  
BOISE — An unwanted Univac 494 still sits on the floor of the data center in the new state office building here, but no one will claim it. Not the state of Idaho, which says the 494 didn't work out for it, and not Univac, which says Idaho bought it and has to pay for it.

Meanwhile, two IBM 360/40s churn out the work the 494 was supposed to do.

### 'Out of Element'

According to a spokesman in Boise, the 494 was out of its

element. "It is an extremely fast machine," he said, "a real-time machine with 65K. But no one was using it for that. It was in a batch balance, job by job environment."

"If there was any TP [teleprocessing] in the center, it was a couple of teletypewriters on card work. Having that 494 there was like using a crane and ball to swat flies."

### 'I/O too Slow'

"The I/O gear they had with it was too slow," he continued, "and when the people tried to speed work up, the work got bad. You really can't hide things like that, keep it quiet. There was a reluctance on the part of the users to send work to it."

The 494, purchased during the previous state administration,

and the state's huge DP budget became a political issue during the last gubernatorial campaign.

The new governor, Cecil D. Andrus, ordered a study of the state's DP activities, and the committee, chaired by George Neumayer, executive director of the state department of highways, recommended that the 494 be replaced by two medium size computers.

### Purchase Agreement

Sperry Rand Corp., according to state officials, maintains that the agreement signed by the previous administration was for purchase, not lease.

State officials also say that Univac claims Idaho has no equity built up in the \$1.5 million 494, and that the state cannot return it.

Univac's parent company, Sperry Rand in New York declined comment.

### No Funds Appropriated

The Administrative Services Office canceled the 494 when the 1971 state legislature did not appropriate funds for it, according to Robert Lenaghan, acting director.

The state's two biggest DP users, the highways and accounting departments, have leased 360/40s from IBM.

The original thinking of the Administrative Services Office, according to a state official, was for centralized DP. The spokesman said that due to the type of work and the geography involved, the idea didn't work.



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# David Sees Executive Branch Setting Privacy Guides

By Alan Drattell  
Washington Bureau  
WASHINGTON, D.C. — The executive branch of the Federal Government can be expected to issue the privacy area by helping set privacy standards and giving impetus for the development of hardware that will help insure individual privacy, Dr. Edward E. David Jr. told the Computer Science and Engineer-

ing Board of the National Academy of Sciences here recently.

"The nation requires... that computers be used to improve the quality of life," the President's science adviser said, noting computers can be used to protect people's privacy. "I dare say that a well designed computer system can be made more nearly private than the

manual filing methods used today. The technology and technique to accomplish this [are] in hand or nearly so.

"Some further innovative effort can provide further advances, but the problem is that system designers and their customers have not seen fit to utilize the available technology to protect people's privacy."

The question of efficiency and costs arises here, he said, adding: "It may well be true that special hardware will have to be incorporated into computing systems to facilitate the elaborate protective mechanisms which in the end will be required for adequate privacy."

"The impetus for these developments has been slow in coming, but I believe we will see incentives by government for

such developments."

He said the executive branch is looking at the issues of privacy and computers as has Sen. Sam J. Ervin Jr.'s (D-N.C.) Subcommittee on Constitutional Rights recently.

"It may be that the day will come when we will see privacy standards established and published. This should not be necessary, but many people believe that it is."

"It is not too much to say that the government will not shirk its duty in this regard."

It is important that the "best minds in the computer field also look upon the computing field as a natural resource and not as a closed community for disciplinary effort with only financial connections to the outside world," David said.

"It is increasingly important that you communicate about computers to the general public and to potential users, for I find a profound skepticism of projected beneficial uses of computers."

David disclosed his office's forthcoming annual report on science and technology will not include a separate chapter on computers, although computers will be "recognized in other chapters."

A criterion of success for the computer industry's ambition to "communicate about computers" will be achieved "when there is a presidential message recognizing computing as a resource to solve national problems. Unfortunately, we are not close to this result at present," he concluded.

## School Agrees to Halt Certain DP Course Ads

NEW YORK — A correspondence school has agreed to stop allegedly deceptive advertising claims for its computer programming course. The claims related to employment possibilities and the students' aptitude for the course.

The action resulted from a crackdown on both computer schools and correspondence schools by the New York State Attorney General Louis J. Lefkowitz.

LaSalle Extension University, one of the nation's largest and oldest correspondence schools, did not admit any violation of law. But it did pay \$2,000 in costs to the state and agreed to discontinue the practices in question.

Assistant Attorney General Stephen Mindell said students at computer schools in general, including those taking LaSalle courses, "have great difficulty getting jobs" unless they have some other credentials, such as a college degree.

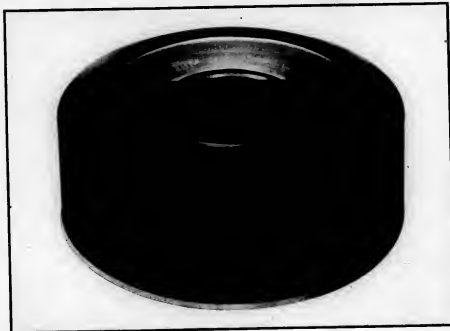
LaSalle agreed to note "conspicuously" in its ads that facts other than completion of the course are necessary to get a job.

LaSalle also agreed to stop running an ad headlined: "Are You a Natural for Computer Programming and Don't Know It?" which went on to claim that the student could find out if he

was a "natural" solely by reading one of the school's sample lessons.

LaSalle spokesmen declined comment.

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## Editorial

### Let's Look Around

There is much talk – and little action – about using computers to give more information to the public. But the New York State Senate actually did something, and at relatively little cost and effort.

For three years, the senate has had a computer file that would give the up-to-the-minute status and legislative history of pending bills. The senators don't use the terminals themselves, but call a terminal operator on the phone.

Some bright person noted that the general public could call the terminal operator just as easily, and installed a toll-free Wats line to make it easy. The operation has been highly successful, with over 200 inquiries a day.

If we look, we can surely find other systems that could be put to use by many more people just as easily.



## Letters to the Editor

### City Seeks Information Exchange On Storage of Geocoded Data

The City of Kettering, Ohio, is actively pursuing a planning and operational data collection system which is economically feasible for a small (70,000 population) city.

During the past 18 months research into the subject of geocoded information systems has proven difficult due to a lack of reference material beyond the U.S. Bureau of the Census and a few other organizations, usually operating at a much larger scale than is economically feasible to a small city.

Utilizing Fortran on an IBM 1130/3 disk system with RK, we have launched into the implementation of what we believe is a dynamic and flexible system to store geocoded data.

I am interested in sharing our experience with other users in government and industry who are interested in this area and who may be able to contribute ideas and suggestions to the City of Kettering effort.

If any reader would care to receive documentation thus far written on the Kettering system, please write to me. Any documentation available will be greatly appreciated.

The classic problem of reinventing the wheel can be avoided if we work together as users with common objectives.

F.M. Weaver, MBA, CDP  
Systems Analyst

City of Kettering  
3600 Shroyer Road  
Kettering, Ohio 45429

### Would Strips Help Thieves?

Your May 26 editorial "The Credit Card Blues" brightly suggests placing magnetic strips on credit cards for business security and protection.

However, you neglect the full potential of this idea. Thieves would soon learn to space their sales (steals?) and otherwise circumvent your limitations. Better would be magnetic recording of a credit customer's current balance on his card. At the point-of-sale, this balance would be incremented (or the sale rejected), depending on his present credit limit.

Such a system would be totally off-line, requiring credit checks only to validate recent payments the

Computerworld welcomes comments from its readers. Preference will be given to letters of 150 words or less. Computerworld reserves the right to edit letters for purposes of clarity and brevity. Letters should be addressed to: Editor, Computerworld, 797 Washington Street, Newton, Mass. 02160.

customer may have made. An on-line system could perform this update automatically, and need operation in this mode only when the balance exceeded the credit line.

Curtis C. Morgan

Alexandria, Va.

As the editorial noted, thieves, acting quickly before the card number turns up on "hot" card lists, normally charge huge amounts within a few days.

### CPPer Views CPP Joint Sessions

For all his "extensive interviews and observations," Tom Morton has failed to convey what happened at the SJCC Concerned Citizens Forum [CW, June 21]. Computerworld has many writers who could have reported straight facts, at the very least, before hearing scores and comments on Computer People for Peace.

For example, Morton says "an unemployment session was canceled so CPP could apparently interrupt" the session entitled "The International View." This allegation is ironic, because the unemployment session was held as planned. CPP's "interruption" of the international session was Harold Head, a Black South African, who was very well received [CW, May 26]; and the unemployment session also "interrupted" by a stalwart defender of the establishment, Mrs. Winkler, who must have been embarrassed with the results.

Morton's ignorance about Alfips' "traditional procedure" in screening speakers is unfortunate. Many of the regular panels had no papers in the Proceedings, notably the one on Law Enforcement. CPP brought in, at its own expense, some very distinguished panelists whose honorable works and lives cast a shadow on any so-called "prominent industry representative."

"Obscenities," "accusations," "interruptions," "insults." Somehow Morton managed to overlook the entire program of CPP, and the national like to which this program attempted to respond. He failed to cover any session, instead interviewing disgruntled attendees.

While CPP is far from free of abrasive personalities, its members talk straight and honestly, and they work for what they believe. Their sessions were relevant, exciting, interesting, direct, and worthwhile. They deserved more than Morton's brand of noncoverage. By the standard that an event is worthwhile if one person is stimulated, CPP sessions were worthwhile for me as well as nearly every other attendee I spoke to.

Stanley U. Robinson, III  
Speaker at "Unemployment and  
The Right to Work"

Wayland, Mass.

## Broadens Scope ACM Changing its Image

WASHINGTON, D.C. — It was the summer of 1969 — San Francisco. The Association for Computing Machinery (ACM) reached its nadir.

At its annual conference it was apparent that ACM was in trouble. The organization had a serious financial problem — a \$140,000 budget deficit for fiscal 1969. And only 2,000 people



showed up at its annual meeting to attend the technical sessions and to view the displays of but 32 vendors.

Despite the problems and the scientific orientation only, there were some changes quietly taking place. A new type of conference was planned for the summer of 1970, intrinsically labeled "an unconventional convention" and geared to opening up lines of communication between the computer community and the general public.

Those in the business segment of the organization began to have their interests heard. And in the past year, under the leadership of Walter Carlson, president, and Gordon Smith, executive director, ACM has altered the image it projected two years ago.

If one were to use a word to describe ACM's stance today it would have to be "imaginative." The recent announcement of its ombudsman program [CW, April 21], aimed at dispelling the "blame-the-computer syndrome" that limits the true progress of our industry, is one example of this imaginative posture.

Another was disclosed by Gordon Smith in an interview.

"The ACM council," he said, "at its meeting during the Spring

Joint Computer Conference approved going forward with a program for setting up computer clubs in high schools."

While the concept is not new — the Association for Educational Data Systems and the Association of Computer Programmers and Analysts have similar programs — ACM is planning to interest not only those students intent upon a career in the computing profession but also those whom Smith classifies as the "idly curious."

There's a relationship between this program and the ombudsman project. "It's all part of trying to get to the public to explain that this (computer) is not some big monster," added Smith.

As in the ombudsman program the clubs will be set up through the local chapters of ACM.

The ACM Council has also reduced student dues from \$12.50 to \$8.

Meanwhile, the ombudsman effort is beginning to pick up steam. ACM headquarters will be presenting two-day orientation seminars to various chapters this summer on how to develop the formal response structure for ombudsman action.

"We're already operating in Indianapolis and Chicago," Smith said.

And at ACM '71 in Chicago this August, the society is expected to announce the winner of its first annual Grace Hopper award. "Univac," related Smith, "came to ACM and said it would like us to administer an annual award to be given to an individual under 30 who's done the most for computing in the past year."

The \$1,000 award will go to those under 30 "because Grace wants to encourage young people to become interested in computers and perhaps use the money for schooling."

ACM has come a long way in the past two years.

# Personal Thoughts on Question 'What Do We Need?'

"What do you want?" "Ask & you will receive?" "Anything I can give?" — were some of the comments that hundreds of CDPers, and dozens of others wrote on the bottom of the CDP Organization Questionnaire. But, as always, there was that one invaluable, maverick response which illuminated the issue just beautifully.

This time it came from Edward Hipley, of Smethport, Pa., who put his finger right on the reason for needing anything, and also on the quiet fact that we are all in this together. He wrote, "What do we need?" and he deserves a full and frank answer.

So, Edward and others, here is my opinion both about what I think we need, and also about how I think we can get it — quickly and cleanly.

## Grass Roots Control

To start with, I think we need grass roots control. I don't want another inflated headquarters organization (although we will have to have something).

Nor do I want an intricate committee structure where all effective power is hidden from the rank and file. I want all our major decisions reached by our members — and frankly only the members who see what nonmembers think we should do.

That's what I think we want —

and I think we can get it too! Here's how it can work, indeed here is how it is already working!

We can use questionnaires — as we have been doing — after people have seen discussion on the issues. And we can get our leadership to agree, in advance, to follow the results of such questionnaires.

## Grass Roots Decisions

For instance, I think that the voting on the two questionnaires to date should be followed.

Therefore, my program calls for:

- An independent, national Society of Certified Data Processors, independent of DPMA.
- Membership currently restricted to CDP holders, but with provision for other examinations, and perhaps other classes of membership (student, honorary, or affiliate) if approved by the membership in the future.

• Allowing a combination of college and experience to qualify people for entry into the examination, rather than five years experience (at now) or four years college (as previously).

• Some break in the current sequence surrounding the examination so as to improve its status.

## Future Possibilities...

Personally, I naturally want the society to do much more. I want it to help improve the professionalism of members, and of the industry. I want it to improve the administrative handling of the examination — getting the results out sooner, giving more guidance to people who have failed etc.

But I don't want it to do any of these things until the mem-

bership has spoken. The members are professionals — and should therefore be respected.

## ... If Membership Matters

So, it follows that my policy calls for more questionnaires, to membership and nonmembers alike. It calls for open discussions — on the purposes of the society, how to prevent it being (or looking like) an effort of self-aggrandizement etc.

My policy calls for us listening to and discussing the ideas of Santa Barbara's David Kleinke, Cleveland's Donald Harts, and Iowa's L. Rosen — and yours.

## Publication Needed

This means that my policy calls

for lots of publication space if we can provide worthwhile professionally interesting copy. It follows that an internal publication (even if we could afford one) would not fill the bill, because nonmembers' opinions would not be heard. Therefore my policy calls for using a commercial publication.

## Quick Publication or Free Paper

Now, there are a number of such publications. Some are free, but take around two months before they can publish responses to ideas. I think this is too long, and kills the effectiveness of our discussions.

Some can provide quick response, around two weeks, but cost money. I think these are preferable, provided they don't cost too much.

Currently, there is only one firm offer. Computerworld's editor, Bob Patterson, has seen the type of material that is coming in — and tells me that if this quality keeps up he will be able to find reasonable space for it. And Walter Boyd, CW's publication manager, tells me that the society, by doing the book-keeping, can qualify for the \$6 per year "association" rate for copies it orders.

(Perhaps I should make it clear here that I am simply a contributor to Computerworld, writing under contract. I have no financial interest in the paper's sales etc.)

And, as you know, Computerworld has shown that it can respond quickly.

## Your Decision Now

So — we can, if the members want, get a grass roots controlled

organization quickly. I think we should — but the decision is in your hands, not mine. There are alternative publications that might be explored — like the DPMA's quarterly CDP newsletter.

## Enrollment

To move at all, of course, costs cash.

I don't know yet how much — but to keep it low I have put \$15 on the form. The \$15 would cover a personal copy of Computerworld, and still leave some money in the till for other so-called unidentified expenses that are bound to appear.

Hopefully, with some of the offers of help we have already received we will be kept from costs down. So here is an enrollment form, and a questionnaire on control and publication.

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## Results of Two CDP Questionnaires

Respondents to the CDP Questionnaire (Taylor Report, May 19) agreed that a CDP holders' organization is needed (469 vs. 27), and that it should be independent rather than a DPMA subgroup (402 vs. 67). A total of 358 voters said they cared enough to join such an organization, while 39 said they did not.

## The CDP Examination

Most voters (392) called for the examination to continue including the two controversial sections — principles of management, and statistical methods — while 68 wanted to eliminate the mathematical methods, and 33 the management section. On changing the examination, 252 wanted essay questions added, 241 wanted the examination made more difficult, while 148 wanted it left alone and 22 wanted it made easier.

## Exam Preparation & Publication

The voters clearly called for the examination to be prepared by people outside the current Certification Council, with only 27 out of the nearly 500 recorded votes disagreeing. Of these, 292 argued that the CDP holders should be involved (presumably meaning the proposed organization) while nearly as many, 243, wanted outside societies to be involved.

Exam publication of some sort was called for by about half the respondents (198 vs. 180) with many abstentions. Of those wanting publication, twice as many wanted the answers kept secret (136) as wanted them published (62).

## The Organization Questionnaire

Results from the second questionnaire, the CDP Questionnaire (Taylor Report, June 9) also have been coming in fast, with around 300 tabulated to date. The voters were asked to select a name for the society, and chose 'The Society of Data Processors' with 185 votes, vs 35 votes for 'The

CDP Holders' Association', and 53 votes for various other names. Twenty-nine of the 53 votes wanted the name American Incorporated, 1 was for National, and 1 for International.

The idea of accepting RBPE holders as members was decisively defeated, with only 18 votes in favor, while a substantial group — but still a minority, was prepared to admit people who passed 'acceptable' examinations, thus potentially altering the standing of the RBPE to be improved in the future. Most of the voters (185) however, wanted membership to be restricted to CDP holders.

This made the answers to the next question — as to just what was an 'acceptable examination' — rather difficult to interpret, and in any case unimportant at this time. The voting was 177 for the CDP, 120 for exams approved by the society, 15 for the RBPE and 2 for DPMA-backed examinations.

## Grades of Membership Defeated

The idea of accepting members into the organization before they had passed all of the examination was decisively defeated, with 273 votes against it and only a total 52 in favor of various possible alternatives, such as people who had passed most of the sections etc.

## Both College & Experience Should Count

Voting on who should be able to take the examination (not in the functions of the proposed organization, but currently much in discussion and a topic on which the organization could well make suggestions to DPMA), called for both experience and college to count towards qualifying an applicant, with 202 votes, while 75 were for five years experience only (which is the new, sole, criteria). Twenty-five were for letting anyone with the entry fee available to take it, and eight advocated opening it up to RBPE holders.

## Society of Certified Data Processors Enrollment Form

### Membership Application

Please enroll me as a member of the Society of Certified Data Processors. I hold the CDP issued in 19—, and □ enclose □ will pay \$15 when billed. (Make checks payable to the Society of Certified Data Processors.)

Name \_\_\_\_\_

Address \_\_\_\_\_

After circling those answers you agree with, return to Alan Taylor, CDP, c/o Computerworld, 797 Washington St., Newton, Mass. 02160

### 1. Society Control Should Be

- A. 'Grass roots' style
- B. Executive committee
- C. Executive director
- D. \_\_\_\_\_

### 2. Society Publication Should Be In

- A. Computerworld (cost \$6, 2 to 3 weeks response time)
- B. DPMA's CDP newsletter (quarterly)
- C. Some free magazine if possible (2 months response)
- D. \_\_\_\_\_



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## National System Proposed

### DP to Aid Health Care: Surgeon General

BUFFALO, N.Y. — The American health picture is "basically unorganized, often inefficient and sometimes wasteful," but computers could be used to improve health care delivery, according to Dr. Jesse Steinfeld, Surgeon General of the U.S. Steinfeld has called for establishment of a national computerized health data system or a network of systems which could "talk to each other."

The systems should be designed not only for use by doctors and other practitioners, Steinfeld stated, but also for health planners. Thus, they should require data about socioeconomic status, income and related matters, as well as patient health data, he added.

His remarks were part of the keynote speech at a conference on the regional automation of health care cosponsored by State University of New York (SUNY) Buffalo, and Erie County.

Centralizing data in a computer system would "dramatically" drive down the cost of health care and permit the medical community to improve both the quality and quantity of its services on a wide front, noted Dr. Elmer Garbiel, associate professor of clinical pathology at SUNY.

Garbiel said a group of local doctors hope to establish a data system for Western New York State.

Under the plan, some 3,000 computer terminals would be installed in doctors' and den-

tist offices, in nursing homes and other health care agencies. Participation in the program would be voluntary with all members using forms designed to gather both medical and extra-medical data specifically for computer use. Plans call for the network eventually to link up with state, national, and even international health data systems.

#### Regional Centers

On the federal level, the government is drawing up plans for a national computerized system through the department of Health, Education and Welfare. The head of HEW's Health Services and Mental Health Administration, Dr. Vernon Wilson, said the Federal Government would distribute data through a dozen or so regional centers to state and local networks for their own use.

He estimated the cost of getting the program off the ground at a minimum of \$65 million. Target date for the program is 1981. Some of the issues to be resolved are:

- Confidentiality of records. Who may and who may not have access to data?
- The patient's relationship to his own records. Does he own them? Can he decide not to include certain information?
- A single computer language. Doctors at the conference generally agreed automated data networks could be invaluable in tracing diseases, in identifying high risk population groups, and setting health priorities. And in spite of the barriers, the automation of health data seems a future certainty. As one doctor put it: "This is only the beginning. There's a heck of a lot of work to do. But really, it's the only answer."

## New Yorkers Learn Status of Bills

ALBANY, N.Y. — The public has been plugged into the New York Senate's computer merely by the addition of a toll-free (Wats) long distance phone line.

For the past three years, any senator has been able to call a clerk on the senate floor who, by keying in the bill number, can get the current status and legislative history of any bill.

This year, the senate added the

phone line, and now the clerk answers questions from the public, too. Calls from the general public have averaged over 200 per day, Senate Secretary Al Abrams said.

Theoretically, a caller needs to know the bill number to get information. But Abrams noted that the clerks quickly learn the numbers of popular pending bills, and will try to help people who don't know the number.

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## ACM Pushes Chapter, Student Betterment

By a CW Staff Writer

NEW YORK — The Association for Computing Machinery (ACM) is moving to encourage quantity and quality of student membership, and has

### 'Not Watchdog': BCS

LONDON — The British Computer Society cannot guarantee that the census is completely secure, but is willing to help add to the "degree of security," the president of the group recently stated.

Alex d'Appareyeff said his society has unjustifiably been called a "security watchdog" for the census, when in reality, all it had offered to do was make an independent assessment of the security in the various computer systems of the population count.

The president also stated his society had helped create a precedent by convincing the British government to permit an "outsider" to look at the use of computers in the public sector.

announced intentions to eliminate one student chapter and one regional unit.

Effective Sept. 1, student dues will be reduced from \$12.50 to \$8, as voted by the ACM Council last Spring.

The committee on student chapters and membership has recommended revocation of the Stenford University student chapter, since it has "not been active for some time."

### Societies/User Groups

ACM also has called for the revocation of the full charter of the Palm Beach, Fla., chapter, for the same reason: lack of activity.

Discussions with representatives from both Stanford and the Florida unit indicated activities are "not feasible" at the present time, ACM said.

In another announcement, ACM said there was a "burgeoning interest of college-level students" in computer science, noting the association has 118 student chapters.

A spokesman said a fee increase (to \$12.50) two years ago resulted in a "sharp decline" in membership, however. The association claims the largest student membership of any of the computer professional societies, with 3,913 in the U.S. and abroad.

## Group Promotes Data Management Systems

ROCKVILLE, Md. — A group of corporations, federal agencies, universities and state governments fostering generalized data management systems meets quarterly in the nation's Capitol.

The group is formally known as the Formatted File Systems Commercial Users Group (FFS/CUG), and advocates the use of those systems available to the general public through development and distribution by the Federal Government.

Meetings are set for Sept. 2-3 and Dec. 2-3.

Information from FFS/CUG Secretary Ralph Greer, Technetics Corp., Suite 456, 414 Hungerford Drive, 20850.

### Electronic Show Canceled

CHICAGO — In the race between trade shows and the economy, scratch another trade show.

The 27th Annual National Electronics Conference and Exhibition and ComFor71, scheduled for McCormick Place Oct. 18-20, has been canceled, according to Robert M. Janowiak, NEC board chairman.

Janowiak said the board, together with industry leaders, will continue to "survey the needs of the electronic community" and plan future conferences.

### International DP Calendar

July 26-30, Mexico City — 1st International Computer Exposition for Latin America (Iccla). Contact: Exhibition Management, Inc., 40 West Ridgewood Ave., Ridgewood, N.J., 07450.

Aug. 16-20, Jerusalem, Israel — The Jerusalem Conference on Information Technology. Contact: Tom Tugend, Boelter Hall 5401, University of California, Los Angeles, Calif., 90024.

Aug. 23-28, Ljubljana, Yugoslavia — Ifp Congress 71. Contact: U.S. Committee for Ifp Congress 71, Box 4197, Grand Central Post Office, New York, N.Y., 10017.

Aug. 30-31, Zurich, Switzerland — International Information Conference on Electronic Data Capture for Cash Registers. Contact: Gottlieb Duttweiler Institute for Economic and Social Studies, CH-8803 Ruschlikon, Zurich, Switzerland.

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## Random Notes

**12 Centers Opened by HIS To Support Model 58 Users**

BURLINGTON, Mass. — A customer support center to provide training, education and assistance to users of the small scale Model 58 was opened here recently by Honeywell Information Systems.

One of 12 similar centers throughout the U.S., the local center is expected to serve eastern Massachusetts, southern New Hampshire, and Rhode Island. Seminars, debugging help, hands-on operation, installation planning and other services will be provided, HIS said.

**Hewlett-Packard Booklet Lists 100 Programs Written in Basic**

PALO ALTO, Calif. — A six-page index available from Hewlett-Packard lists titles and order numbers of more than 100 time-shared basic programs contributed by HP users and distributed by the company's software center. Numerous applications are included, a spokesman said.

The booklet contains ordering instructions and tells where to get more detailed information on each program. The index can be requested from 1801 California Ave., 94304.

**'GAP' Accepts Register Tapes Prints Reports at NCR Centers**

DAYTON, Ohio — Cash register, adding machine, and accounting machine users gain the ability to sort, analyze and summarize their accounting data on their own needs, with the General Analysis Program (GAP) service available at NCR data centers.

GAP is tailored by the user and does not require custom programming by the data center staff. It accepts punched paper tape or optical-form register tapes as input and can be used in a wide range of applications.

**Patents, Trademarks Managed**

CHICAGO — Patent departments can be sure that docketing and other legal actions are done on time by using the Patent and Trademark System (Pats) from Brunswick Corp. The docket report lists by date the actions required by, or to be received in, the Federal Patent Department during the next month.

Pats' handling of trademarks is a key distinction between the \$9,500 package and others that just control patent paper work, a spokesman said. Written in Cobol and requiring 30K core and a disk, Pats is available from 69 W. Washington St., 60602.

**Bank Package in Spanish**

CHERRY HILL, N.J. — A charge card system geared to the needs of banks in Latin America and other Spanish speaking areas has been developed by Arthur S. Kranzley (ASK) and Co., as an adaptation of the Banker's cardholder and merchant accounting system available in the U.S.

Programs are in Cobol with output reporting in Spanish, according to specifications worked out jointly by ASK and Banco Nacional de Mexico City, first user of the new system.

ASK is at 1010 S. Kings Highway, 08034.

**One State Per Module****'Taxcca' Tailored to Meet Payroll Needs**

By Don Levitt

Cw staff writer

NEW YORK — A modular package that calculates federal, state and local payroll withholding taxes, Taxcca from Data-Sonics Inc. can be used as a separate program or as an integral part of a payroll program.

Taxcca is said to cover the states that have some withholding tax to be deducted from employee earnings, but each state is in a separate module enabling the user to purchase only those portions he needs.

The system uses an annualized earnings method of computing federal income tax deductions, and applies the same technique to the lower levels, except where a direct rate can be used against the earnings.

Each module contains the logic for major county or city income withholding taxes within the state, as well as the logic for the state-level taxes.

Federal income tax withholding calculations, including social security (FICA) deductions, are included in the mainstream

of the Taxcca package. As with the state modules, this logic covers all variations of taxpayer status, and virtually any number of dependents.

The system allows employees to claim a different number of dependents under state and federal withholding plans.

Taxcca is available in Cobol, PL/I or Fortran and requires from 2,500 to 16K bytes of core, depending on the number of state modules being used. The package with calculations on the federal level, and

10 state modules, costs \$500. Each additional state module costs \$50. The entire package is available for \$2,000.

Annual maintenance costs 15% of the purchase price. As new taxes are added and old ones change, new modules will be sent to each user. When additional states institute income taxes, modules for those jurisdictions will be provided, without cost, to purchasers of the full Taxcca package and maintenance service. Data-Sonics is at 663 Fifth Ave., 10022.

**Package Meant for Reformatting Has Possibility of Other Uses**

NEW YORK — Users faced with converting data records from one format to another can do the job, and apparently a good deal more, with a package called Universe from PDA Systems Inc.

In addition to reformatting records on the basis of parameter cards, the package

also allows the selection of records from an input file, based on the value of any field within the record, or on a percentage basis.

These options appear to turn Universe into a tool for financial auditing and test data generation.

Reflecting its primary role of generating files for direct mail addressing, Universe includes a series of tables to handle specific conversion tasks. Codes for titles and state names are processed through table searches, the company said, as is the determination of sex by the examination of first names.

The package also provides exit points at which users can shift to own-coded subroutines, to handle additional or special processing steps.

The reformatting of the data records can entail a resequencing of the fields within each record and re-adding of fields. The reformatting capabilities of Universe are available on a service basis, as well as in a package, from PDA. The package costs \$3,200, requires 12K bytes. For Universe-based service, PDA charges a \$150 preparation fee for each file, plus one dollar/1K records on the file. A surcharge of \$45/ret is made for any tapes that are not 9-channel, 800 bit/in. format. PDA is at 12 E. 86th St., 10028.

**'Caas' Predicts Market Behavior**

JENKINTOWN, Pa. — A business simulation system capable of forecasting short-term market behavior, the Commodity Acquisition and Allocation System (Caas) from Decision Sciences Corp. (DSC), can be adapted to any computer evaluating fluctuating markets.

Originally written for the copper market, Caas has since been adapted to sugar, cocoa, beef and precious metals. By treating interest as futures prices, the system has been used to forecast the money market.

The system should enable users to acquire raw material at a lower average cost and allocate inventory to the most lucrative product lines for one- to three-months, DSC explained.

Caas allows the user to identify the factors on which his company's profit-

ability depends, and provides a method of forecasting changes in those factors with known degrees of accuracy.

The package can provide four econometric models. In addition to forecasting raw material prices, the system can also forecast both the demand and the price of finished products using those raw materials.

Once the models have been created, users are able to determine the product mix they should produce, as well as the cost of the mix.

A feasibility study, including definitions of which subsystems are appropriate to a user, costs from \$15,000 to \$20,000. Further customization may be required and a complete Caas implementation typically will cost between \$50,000 and \$200,000, DSC said from Fox Pavilion.

**Manufacturing Applications Available on CSC's Infonet**

LOS ANGELES — Manufacturing companies should be able to reduce inventory and production expenses without the cost of developing or buying software for in-house use, with a new set of services on the Infonet time-sharing network run by Computer Sciences Corp. (CSC).

First application of the set, available now, is an on-line inventory control system. A production control system is expected to be added in August, CSC said, and related systems will follow.

The inventory system accepts shipping and receiving information from the user and prints exception reports, called action notices, whenever stock levels exceed or fall below pre-defined limits.

Every 30 days, the system reviews the forecast of demand for each item in stock in the light of the previous month's transactions. If changes are needed, it revises reorder points and recalculates quantities to meet the revised forecasts.

In addition to the action notices, the system will prepare detailed reports on a weekly and monthly basis. Formats for the reports and other elements of the system are customized, a CSC spokesman said.

The inventory system requires a Datapoint 3300 CRT terminal and/or Olivetti hard-copy printer at the user's location. It is available initially in the Chicago and Los Angeles areas.

Normal time-sharing charges do not apply with the new service. Users are charged \$3,500 for customization and installation and are then billed on a per transaction basis. Typical billings will be from \$1,500 to \$2,400/mo, CSC estimated, from Century City, 90067.

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IBM's newly announced cuts in monthly charges for some data processing products might look pretty good.

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But can you afford a fast look?

Here's how it all adds up.

An IBM 1403N1 on-line high speed printer will lease for 24 months—with the necessary controller and 3615 feature—for \$1302 per month.

You can rent a comparable Mohawk Data 3160 for \$1050 per month. As the chart shows, our prices are significantly lower across the board. That goes for our other products, too—even in the face of price cuts.

Don't stop adding. There's more. The IBM machine prints 1100 lines per minute, with a 132 character print line. Mohawk's 3160 prints 1250 lpm, with a 160 character print line.

You can vary format more, print more, on fewer forms. It all adds up to more for less.

Now, don't get us wrong.

We think it's pretty nice that the big guys in the industry figure you ought to be paying less for data processing equipment.

We only wonder why they didn't think of it sooner.



Fixed-term lease and maintenance	IBM 1403N1 High Speed Printer* 1100 lpm	MDS 3160 High Speed Printer 1250 lpm	Savings with MDS Printer
12-Month	\$1,426/Mo.	\$1,150/Mo.	\$276/Mo. 19 +%
24-Month	\$1,302/Mo.	\$1,050/Mo.	\$252/Mo. 19 +%

\*Price includes required 3621.000 controller and 3615 feature.

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COMPUTERWORLD

## communications

## Bell Canada Rate Schedule Includes 1-Minute Calls

MONTREAL — Data users have had mixed reactions to a Bell Canada long distance rate schedule that went into effect in early June.

Bell has estimated that the schedule, including special rates for dialed calls less than a minute long, will reduce costs on 56% of all calls. The carrier expects increases on 38% of all calls and no change in the cost of 6%.

Although the overwhelming majority of Canadian data users are in the Toronto-Ottawa-Montreal triangle, the carrier was unable to say how data transmission calls, in particular, might be affected by the new schedule.

The schedule is not designed to raise rates, the company said, but to make more efficient use of the carrier's network.

In addition to the one-minute calls, it includes discount periods in the evening, at night and on

Sunday to encourage use of those normally slack periods.

Rating zones have been simplified and all calls beyond a 500-mile radius are subject to a single rate, regardless of actual calling distance. Previously the single rate applied only to calls going more than 1,100 miles, Bell said.

Users haven't received any bills under the new schedule but a spokesman for Systems Dimension Ltd. said his company expects some decrease in its communications costs. Bell has been under a great deal of pressure to do something to help the data users, he said, and the one-minute call is "a step in the right direction."

A spokesman at Computer Sciences Canada disagreed, saying the rate schedule "won't have much effect" because most of the calls to the CSC network are more than a minute long.

## Comments Wanted

By Don Leavitt  
CW Staff Writer

WASHINGTON, D.C. — Having decided to allow the entry of specialized common carriers (CW, June 21), the Federal Communications Commission now asks interested parties to comment, within the next month, on any of several proposals for the allocation of frequencies for local distribution of signals by the carriers.

The commission wants comments on the Microwave Communications Inc. (MCI) proposal to allocate 38.6 GHz to 40 GHz for a local carrier distribution service (CDS), and on the request of Data Transmission Corp. to use 11 GHz and/or 18 GHz for its end-to-end digital network. Evaluations of the use of 30 GHz or 50 GHz frequencies would also be welcome, the FCC said.

The comments should be in by Aug. 2, and should pay particular attention to the technical feasibility and comparative costs of the alternatives. The effect on charges to subscribers for end-to-end service, as well as the reliability of service and availability of equipment should also

be covered, the commission said.

Apparently impressed with the response it received under Docket 18920, which led to the specialized carrier decision, the FCC added, however, that constructive comments on any subject are welcome at any time.

An MCI spokesman said his company will be glad to com-

ment further on the CDS proposal.

MCI would like to see developmental authorizations granted, so that it can have an actual test of the propagation of the system. The company anticipates local hops of two miles without degradation of service, a spokesman said.

## Software for Directory Updating Developed, Tested by AT&T Unit

PORTLAND, Ore. — Bell Laboratories has developed a generalized software system, called Dir/ect, for producing directories in all Bell System companies. Field tests are in progress at Pacific Northwest Bell (PNB) here.

Designed principally to prepare standard white-page directories for customers, Dir/ect will also produce monthly listings of changes for the directory assistance staffs, equipment orders, and billing information.

Using a service order as input, Dir/ect edits the given data in the disk-based telephone master file.

As the master file is updated,

Dir/ect produces a list of transactions for the alphabetical report of charges used by directory assistance personnel. The updated listing shows individual subscribers and their phone numbers.

Complete pages are stored on disk and displayed on a CRT terminal for last-minute editing by an operator before being transferred to magnetic tape. The tapes become input for photo-composition machines for the final preparation of the directories.

Dir/ect incorporates some of the ideas developed in earlier attempts at automating the directory production procedure.

## Data Briefs

### Datran Outlines Switching Plans

VIENNA, Va. — Data Transmission Company (Datran) has announced that it will use a Stromberg-Carlson solid state time division switching system if the company's nationwide data communications network is authorized by the FCC.

The switching system will include a series of solid state matrices and control processors to be located in each of the 35 cities in the initial Datran network.

### Datserv Adds Bell-Compatible Modems

BURLINGAME, Calif. — Data users can gain all of the facilities of the Bell 103A data set, including the long-span disconnect, with the Series 1300 modems from Datserv, Inc.

Both the Model 1310 printed-circuit card and the Model 1340 stand-alone modem use crystal oscillators for which parameters in the time and frequency domains are derived by digital techniques. The 1310 is available for \$388, while the 1340 costs \$568 from 770 Airport Blvd., 94010.

### Signals Conditioned for Tektronix Displays

BEAVERTON, Ore. — The 4701 Eight-Channel Multiplexer from Tektronix Inc. includes eight vertical channels and a calibrated timebase.

The 4701 provides capability for eight Y-T, 4 X-Y or mixed Y-T and X-Y displays. The multiplexer costs \$1,500 from the company, through P.O. Box 97005.

### Distortion Analyzer Includes Generator

TIMONIUM, Md. — Firms servicing data communications systems or equipment can identify specific types of distortion accompanying the desired signal, with the DTS-531 distortion analyzer from Communications Technology Inc.

The device is said to distinguish between marking bias, specking bias, speed distortion and cyclic distortion. A message generator which can produce clear or distorted text is included in the \$4,000 unit from 1900 York Road, 21039.

### Forward Error Control Added by ADS

CANOGA PARK, Calif. — A wide range of transmission errors can be corrected with the Forward Error Control (FEC), available as an option on the American Data Systems ADS-448 Automatically Equalized Modem. While it corrects errors, FEC adds a 25% overhead on data throughout so transmission rates drop from 4,800 to 3,600 bit/sec. ADS said. The FEC option costs \$1,500 from 8851 Mason Ave., 91306.

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## Bits &amp; Pieces

## UCC's Datal 31 Terminal

## Uses New Cassette Design

DALLAS — The UCC/Datal 31 keyboard communications terminal features an incremental tape recorder-reader utilizing a 4 in. by 4 in. cassette with a 1/8 in. tape to store 90K char. The cassette boasts copiously mounted reels to provide uniform tension, resulting in a drive with one moving part.

The 31 has read-after-write, with transmission speed of 15 char/sec. The unit rents for \$160/mo, including maintenance. Delivery is 30 days, the company said.

University Computing can be reached through 1500 UCC Tower, P.O. Box 6228, 75222.

## Atlantic CRTs Given Graphics

SOMERS POINT, N.J. — Atlantic Technology Corp. CRT displays now combine graphics and alphanumeric on the same screen. The graphics option is available with the basic ATC 2000 Data Display Terminal which offers up to 1,920 cursor strike, flicker-free characters.

Delivery is 90 days. Terminal prices for the option average \$300 purchase or \$17/mo rental, and very according to size and configuration of the system. The firm is at Seventh St. and N.H. Ave., 08244.

Mini-Tapes Interface with PDP-11 MOUNTAIN VIEW, Calif. — Tri-Data Corp.'s four transport and single drive mini tape units are available to interface with the DEC PDP-11. The Model 410E-11 with four independent tape drives and a total 12 Mbits storage capacity, and the Model 1124-11 with one drive and total capacity of 3 Mbits, sell for \$6,050 and \$3,600, respectively, with all interface circuitry, software, cabling and operating instructions.

Tri-Data is at 800 Maude Ave., 94040.

## EM&amp;M Enters Core Replacement

LOS ANGELES — Electronic Memories and Magnetics will begin delivering core replacement memories for 360/40s and 50s this fall, to be followed by memories for 30s and 66s. So far prices have not been set, nor has EM&M decided to expand core beyond IBM maximum. The company says it intends to be "competitive" in prices, however, and is considering outboard memories. EM&M is at 3435 Wilshire Blvd., 90005.

## NCR KSR-33 Replacement Triples Speed

By Michael Merritt  
CW Staff Writer

DAYTON, Ohio — NCR is making a bid to replace Teletypes with its faster, more expensive NCR 260 Data Terminal. The 260 uses a thermal printer and special paper to write 30 char/sec.

The Teletype 33 and 35 models print 10 char/sec, and the KSR-33, without punched tape equipment, sells for \$600 to \$725. The 260, which is fully compatible with the TTYs and offers the same

control keys, sells for \$2,200 for a receive-only model, and \$2,600 for a send-receive combination.

NCR claims the price difference is more than made up by lower transmission costs that results from the 260's higher speed, and from lower maintenance costs.

The internal workings of the 260 are keyboard, print head, two logic boards, three photocells, two solenoids, and a stepping motor. Tests indicate the 260 can operate for 4,000 hours before it

requires servicing, NCR said.

The print head has 35 resistance wires that heat up to about 700° F to alter the dye in the specially-coated paper. The heat sources are embedded in ceramic that dissipates heat rapidly, so the head never becomes warm to the touch.

The dot pattern of the printing enables NCR to achieve upper and lower case font simulation.

The 260 is quieter than Teletypes, NCR said.

The unit operates through an acoustical coupler of 103A/103F Data Set or equivalent.

The "thermo-chromatic" paper for the 260 costs over 50¢ more than standard TTY paper. In lots of one, a 100 ft roll of NCR paper costs \$1.60, while Teletype paper goes for 90 cents to \$1.00 a roll.

While there is now no paper tape option available for the 260, NCR said it would soon have a magnetic tape cassette feature capable of transmission speed up to 120 char/sec.

The 260 is similar to Digital Equipment's Teletype replacement, the DEC-writer LA 30. This unit, which sells for \$2,500, uses a matrix of moving wires in the print head to place ink on regular paper, and also prints 30 char/sec.

## Four M&amp;M Remote Batch Terminals Can Replace 360 / 25; 1004; 200

ORANGE, Calif. — The 500 series remote batch terminal from M&M Computer Industries can serve as plug-compatible replacements for the IBM 360/25 with Hesp, or the IBM 2780, CDC User 200, and Univac 100.

Three of the four terminals in the series are intelligent, offering a software library for off-line computing. The heart of the intelligent terminals is a 4K, 16-bit mini that can be expanded with plug-in boards to 32K.

In basic configuration a 300 card/min reader, 245 to 1,100 line/min printer, communications controller, and emulators are standard equipment for the intelligent terminals. On the larger 565 and 560 systems, a teletypewriter and punched tape equipment are also standard.

For the intelligent terminals transmission rates are from 2 kbit/sec to 4.8 kbit/sec, while the rate is 9.6 kbit/sec to 50 kbit/sec for the top-of-the-line, Telapak-oriented, 560.

Optional equipment includes card punches up to 275 card/min, card readers up to 800 card/min, and line printers up to 1,800 line/min.

The non-intelligent 515 remote batch terminal includes a 300 card/min reader, 135 line/min printer and a 2 kbit/sec to 2.4 kbit/sec communications controller, as well as emulators.

Basic price for the 515 is \$615/mo, including maintenance, while the three intelligent versions range from \$890/mo to \$1,489/mo.

A fully equipped 560, capable of replacing a terminal 25, costs \$1,923/mo.

The software library includes Fortran IV, Algol 60, time-sharing Basic, DOS, single user Basic, math routines, floating point, text editor, and diagnostics.

Delivery is being quoted at 30 to 60 days from 770 N. Main St., 92668.

## Interdata 270X More Powerful, Flexible Than IBM Equivalent

OCEANPORT, N.J. — Users of the enhanced 270X data communications front-end from Interdata Inc. get more flexibility than they would have with the IBM 2700 transmission control units that the Interdata unit replaces.

The IBM devices are hardware and can support only a specific range of terminals. The Interdata front-end, on the other hand, is programmable and can be adapted to any terminal without recoding of applications programs that are already operational, the company said.

The latest 270X is a dual processor system, integrating a communications I/O processor and a processor dedicated to interfacing with the 360. Both units are programmable and each can be used as a free-standing CPU if needed, an Interdata spokesman said.

The system includes software adaptations for asynchronous and synchronous data set adapters.

The software library for the 270X now includes a scheduler, command processor, console controller, data set line controller and adapter processors.

Interdata provides the software needed for whatever communications configuration the user has at time of installation. Reprogramming by the user, to handle new equipment, is done in a BAL-like language.

Priced at \$40,000, the new Interdata 270X is available on a 90 to 120 day delivery schedule for configurations involving any of the more common terminals. Delivery time would be lengthened if Interdata had to program the logic for any "exotic" equipment, the company said.

Interdata is at 2 Crescent Place, 07757.

## Intel Insurance Covers CPU Failure

NEW YORK — You're in good hands with Intel — at least if your leased computer system goes down.

As an added attraction of its third-party 360s, Intel is including in its contract an insurance policy that covers rental and outside service bureau costs if the system fails for more than 48 hours.

If there is a hardware failure for more than two days, Intel clients don't have to pay any rental on their machine for the duration of the failure. In addition, if the machine is down for two days or more

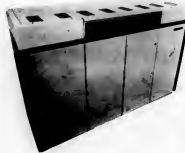
and the user must turn to an outside service to get his work done, Intel's insurance pays any of the bill that exceeds the rent on the Intel machine.

So far Intel has had to pay off "two of three times," including once when an Intel 40 fell off the delivery truck on the way to the installation site. The user had to keep his IBM 40 until Intel could ship a replacement, and the insurance covered the extra cost. Intel is at 1120 Avenue of the Americas, 10036.

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Mel Schwartz manages software development and teaches computer science at Northwestern University. He's an active ACM member and Technical Program Chairman of ACM'71, our annual conference to be held August 3-5 in Chicago.

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# COMPUTER BUSINESS

a Computerworld news section about the nation's fastest growing industry

July 7, 1971

Page 23

## CI Notes

### Telex Seeks to Stop Intel from Selling 3100 Disk

TULSA, Okla. — No sooner had Intel announced the 3100 double-density disk for 360s and 370s, made by its recent acquisition, ISS, than Telex, former marketer for ISS products, went to court to enjoin Intel and ISS from selling it. Judge Robert Green of the District Court of Tulsa has granted a temporary restraining order. Intel had no comment.

The 3100 has a maximum storage capacity of 58 Mbyte/disk, twice that of the 2314, across time of 29 msec, about half that of the 2314, and sells for a "highly competitive" price. Delivery of the first 3100s had been scheduled for early fall. The disk drive is the culmination of a complex Intel business plan involving manufacturing, marketing, and financing, and is the company's first end-user disk product.

### Valley Suing XDS on DP Sale

VAN NUYS, Calif. — Valley Computer Corp. has filed suit against Xerox Data Systems for \$300,000, claiming XDS rescinded a contract to sell Valley a warehouse full of mainframes and peripherals. Valley, whose primary business is maintaining CDC systems, was planning to refurbish the equipment and sell it with maintenance on the used computer market. Xerox Data Systems backed out of the contract the day after it was signed, after Valley had bought \$3,000 of spare parts and lined up customers for an estimated \$300,000 profit.

### Nixon OKs ICL, USSR Deal

WASHINGTON, D.C. — The Nixon administration has given approval to a \$25 million computer deal between the UK's International Computers Ltd. and the Soviet Union's computer center at Serpukhov, site of the Institute of High Energy Physics.

The sale involves two 1906As, which had been regarded as strategic goods. Smaller 1902As, not strategic, are believed to be included in the sale. A congressional protest may yet be lodged against the sale.

## Supershorts

A subsidiary of Technicon Corp. has acquired the assets and staff of Lockheed's Hospital Information Systems Division, and signed a five-year contract to provide medical information services to El Camino Hospital, here. The agreement replaces an earlier one with Lockheed.

Entrux, the company's new, has opened sales offices in Hartford, Conn., New York, Washington, and Chicago.

Optical Scanning Corp., maker of optical mark readers and OCR forms, has agreed to acquire Infotek, Inc., OEM of CRTs and data entry devices. Opacum will service both firms' equipment.

Applied Data Research has won a \$1.5 million contract to provide a computer-based communications system for Cleveland Clinic and Cleveland Clinic Hospital. The turnkey system will be based on three PDP-11s.

## Analysis Lawyer Views Trade Secrets

By J. Thomas Franklin  
Special to Computerworld

Trade secrets — such as computer programs and proprietary data banks — need not be patented to be protected.

So held the Second U.S. Circuit Court of appeals in a recent landmark decision, *Pointon vs. Bourne*, involving trade secrets. At least in cases where no patent application has been made, the owner of proprietary information may sell or lease it under the protection of state trade secret laws.

The appellate decision overturned a lower court finding that the federal patent system was the only means of protecting such intellectual property.

The software and data bank industries have never had the benefit of a clear legal basis for proprietary protection. Although patents of software have been upheld by the Court of Customs and Patent Appeals, these decisions have been opposed by the Commissioner of Patents, and have never been reviewed by the Supreme Court.

Software manufacturers relying on patent protection may be disappointed if at some time in the future the Supreme Court invalidates software patents. The opinion of the Second Circuit Court reaffirms the trade secret law as the single most effective basis for legal protection of software and data banks. The International Data Corp., for example, has readily obtained injunctions based on trade secret laws against unauthorized vendors of its proprietary file of computer installations.

The essential evidence in all IDC's prosecutions has been proof that the defendants realized the data they were marketing was secret and that they were not authorized to disclose the secret.

In the recent case of *New York v. John Scott* [CW, June 16] criminal charges were dismissed for lack of proof that the defendant stole an IBM customer list.

(Continued on Page 26)

## Newcomer's SJCC Experience

### Exhibiting at Joint Cited as Marketing Boon

By Michael Merritt  
CW Staff Writer

CAMBRIDGE, Mass. — How much does exhibiting at a Joint-Computer Conference help a company? According to one exhibitor at the Spring Joint, quite a bit. So far Conographic's corporate history has paralleled that of hundreds of new technology companies in the Boston area. It was started two years ago by MIT and Harvard Business School alumni, who spent two years developing a product — in Conographic's case a graphics display with hardwired curve generators that provide great savings in transmission and obviates a great deal of matrix manipulation — came up with some venture capital and a business plan, and got to the point of mass manufacturing space near Route 128.

To Atlantic City

So when it finally came time to let the world know about Conographic displays, the company's officers packed up their scopes, PDP-8s, and brochures, and waited for the Atlantic City, and waited for



Thomas J. Watson Jr., former chairman and chief executive officer of IBM, in 1967, as IBM was on the verge of its greatest success story — the overwhelming acceptance of the 360.

## RCA Underlines Goal of No. 2

MARLBORO, Mass. — A red balloon, tethered by a pennant-string line, rose 150 feet in the hot summer sun here last month, signaling RCA's renewed commitment to being No. 2 in the computer field.

The balloon marked the site where RCA Computer Systems is beginning construction of a \$16 million, 12-story reflective-glass building for executive offices.

"The building," said L.E. Donegan Jr., division vice-president and general manager, "is a manifestation" of RCA's intent "to become a major factor in the computer industry."

The completed facility will house about 2,000 people. Existing buildings here currently house about 1,700.

The headquarters facility is the final stage of a three-part construction program begun in May, 1968. When the final phase is completed in late 1972, RCA will have invested more than \$25 million in land and facilities in Marlboro, Donegan said.

prospects.

And, nicely enough, the prospects came. A DEC man came by and saw the curves whirling on a scope powered by an 8 could be programmed to do that."

A Tektronix man came by — Conographic's terminals use their scopes and Tektronix was exhibiting its own graphics terminals 50 feet away — and looked.

40% More Leads

And about 600 other people came by who were interested enough to ask for literature. Forty percent of them have turned out to be solid leads, according to Conographic President Luis Villalobos, and about 4% have been converted to sales for shipment within the next four months.

If that turns out to mean 24 terminals at \$9,000 each, the Joint exhibit has produced over \$200,000 of orders.

Lack of History

Which isn't bad, but could have been better, Villalobos said. One of the main problems of a new company is its lack of

## IBM's Watson Steps Down

By Michael Merritt  
CW Staff Writer

ARMONK, N.Y. — T.V. Leason was on the podium with him last April in Montreal, sharing the responsibilities of running the annual meeting — that should have been a clue. IBM's new competitive policy took shape while he was in the hospital, recovering from a heart attack — that should have been a clue.

And while Leason was working to shore up IBM's customer base, he, the patron of wild ducks in a company known for its heavy-handed paternalism, was writing memos forbidding flashy ties — that should have been a clue.

Thomas J. Watson Jr. has retired as chairman and chief executive officer of International Business Machines Corp. — "the IBM company" as he likes to call it — relinquishing those posts to T. Vincent Leason, who becomes the fourth chairman in IBM's history.

Watson will become chairman of the company's executive committee, the post Albert L. Williams was given upon retiring as president of IBM in 1966, when Leason became president. Williams has been elected chairman of the board's newly formed finance committee.

Frank T. Cary, executive vice-president and board member since 1968, has been elected president.

At the annual meeting April 26, Watson denied his doctors had advised him to retire, saying his health was "great." Announcing his resignation, Watson reaffirmed his saying, "While my doctor assures me I have made a complete recovery from the heart attack I had last fall, it has also become clear that a reduced business schedule is desirable."

Watson also expressed his confidence in Leason and Cary. The former chairman will remain a member of the management review committee and the corporate office.

production history. OEM customers are especially sensitive to untied customers, he noted, as many suppliers with proven ability to ship equipment in volume and remain in business long enough to support a large contract.

To fill the orders it has, and to establish a track record, Conographic is about to move into new facilities in an industrial park in the suburbs. Current schedules call for the first delivery of the Conograph 10 in September, and the 14 in October.

Villalobos does not foresee any great problems in producing the terminals, and has predicted volume production in six months.

He also noted that one of his most interesting markets is time-sharing. One major network is already considering offering the Conographic terminal to its customers. According to Villalobos, because the time-sharing industry is so competitive, once a supplier offers a service or convenience, the other suppliers also must offer it, or an equivalent, in order to keep their customers.

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# FOR PEOPLE WHO DON'T KNOW WHAT THEY'RE MISSING

### Group I New Products and Applications

The data offered in these Reports and Profiles describe new products being offered to and by the data processing industry. Included are applications for these products as well as new applications for existing products. Reports include names of suppliers; users who have developed new applications for products; new general developments in the field.



(Circle No. on coupon)

- 1 Computers & Minicomputers
- 2 Terminals
- 3 Software
- 4 Components
- 5 Supplies
- 5A Input Devices
- 6 Services
- 6A Peripherals (other than terminals and input devices)

### Group II Installation Contracts

This Profile deals with the granting of data-processing contracts. Included are contracts for hardware, software, and peripherals. The information reported includes, whenever available, the names of the companies involved in the contract; a statement of the proposed work; the length of the contract; its proposed start-up date, etc.

(Circle No. on Coupon)

### 7 Installation Contracts



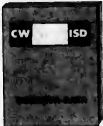
### Group III Industry News

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- 8 EDP Mergers & Acquisitions
- 9 New Companies & Services
- 10 EDP Activities & Trends
- 10A Foreign Marketing Trends & Forecast
- 10B Corporate Data (financial & marketing activities of EDP companies)

### Group IV User-Markets: Developments and Applications

Date-processing developments and applications for specific markets and uses of available products (hardware, software, services, etc.) are highlighted in these Reports and Profiles. Included are data detailing how the product is used for specific jobs; its value to specific user-markets; users of the product; companies offering the product; availability of the product; components of packages for user-markets.



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- 11 Accounting
- 12 Banking
- 13 Insurance
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- 15 Communications
- 16 Medical/Hospital
- 17 Data Processing
- 18 Transportation/Reservations
- 19 Financial
- 20 Information Transfer
- 21 Education
- 22 Law Enforcement
- 23 Legal
- 24 Government
- 24A Pollution Control

### Group V Reports and Profiles for Specific Job Titles

These Reports and Profiles contain data of interest to people with specific responsibilities in the field of EDP. They deal with developments in data-processing which have a direct bearing on the type of work performed in these positions.

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- 25 EDP Managers
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- 27 Systems Designers
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- 29 Librarians
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## Memodyne Unveils Incremental Recorder

NEWTON, Mass. — Memodyne Corp.'s UUV-101 incremental tape cassette recorder is the first of a new series of unidirectional, write-only bit-by-bit recorders using a simple slip clutch drive.

The 101 allows serial NRZI data to arrive and be recorded at random rates up to 300 bits/sec. Packing density is 120 bit/in., giving a standard Phillips cassette a storage capacity of 432,000 bits or 43,000 characters.

In single quantities, the 101 costs \$189 with electronics; in OEM quantities the price is \$99. A read-write unit will soon be available for \$289, including electronics, in single quantities. OEM price will be about \$200.

All control and read-write electronics for the drives are contained in miniature plastic modules which can be mounted either in the cassette transport or on any standard IC mother board in a minicomputer or key-to-tape mainframe.

Memodyne is at 369 Elliot St.

### Tape Transports Bow

LOS ANGELES — Winlab Laboratories' Series 779 F tape transports operate at 25 in./sec and are IBM-compatible as well as plug-compatible with comparable tape units.

The 7- and 9-track models have a single capstan drive, a forward speed of 25 in./sec and are available with recording densities of 200, 556, 800 and 1,600 bit/in. with single- or dual-gap heads.

In addition to the forward speed of 25 in./sec, the series also features a rewind speed of 175 in./sec.

Prices for the Series 779 F start at \$1,940 for OEM quantities. Delivery is within 60 days from 4221 Redwood Ave., 90066.

### Phonocopy Adds Modems

STAMFORD, Conn. — Phonocopy's new line of 4,000 bit/sec modems sell for \$500 to \$600 in lots of 100, and for \$750 to \$850 on orders from one to ten.

There are three modems in the series, a digital synchronous, a digital asynchronous, and a straight analog. The units operate on amplitude modulation with a residual side band.

Error rate is one in 10,000, according to Phonocopy. Delivery for standard units is 30 days from 120 Long Ridge Road, 06904.

### PC Board Dissipates Heat

BURBANK, Calif. — A printed circuit board that accomplishes heat dissipation and conduction functions as well as normal PC board functions has been introduced by International Electronic Research Corp. (IERC).

Called Metal Core Circuit Board, the component permits circuitry to operate at power dissipation levels above those possible with common epoxy boards while maintaining the same temperature rise above ambient without the need for heat sink/dissipators, the company said.

Using the same board mounting method and operating in the same environment, the new heat dissipating circuit board can accommodate four times the power density of a standard G-10 epoxy board.

IERC is at 135 W. Magnolia Blvd., 91504.

### Read-After-Write Head

Available in up to 4 Tracks

HICKSVILLE, N.Y. — A digital cassette read-after-write head from Magnuson Devices, Inc., the Model 216, is available in single and two channel configurations, as well as four track. A rough guide for the tape gives tape guidance over the full width of the head and crossfeed is less than 5% in the read/write head, the firm said.

The Model 216 can be used at high packing density — up to 3,200 flux change/in. and at speeds from 1 to 75 in./sec. Track format can be as desired, such as Anai, Ecma and ISO proposed standards. Track

width, location and base dimensions can be held to  $\pm .001$  in., while azimuth can be held to  $\pm 1$  min.

Delivery of single and dual track test quantities are from stock, other formats take up to four weeks. Magnuson is at 124 Duffy Ave., 11801.

### Wabash Has 5-Mbit Memory

LOS ANGELES — The Model 640, a 5-Mbit memory, has been introduced in the bead-per-track Disc Memo Series by Wabash Computer. Average access time is 17 msec.

Model 640's rotating disk, with enclosed head-per-track configuration is designed to prevent internal contamination from mechanical wear and pollution from surrounding environment.

Read/write heads and all 64 recording tracks are permanently sealed in a dust-free enclosure. Recording surface is nickel cobalt.

The self-clocking recovery system assures reliable data transfer, the firm said. Master, index and sector clock tracks are available.

A power supply to provide ac and dc power for the Disc Memo and Controller units is optional. Priced from \$3,200, delivery is quoted at 60 days from 1543 W. Olympic Blvd., 90015.



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## SEC Hits Memorex's Reporting Practices

WASHINGTON — The Securities and Exchange Commission has charged that Memorex Corp. violated the antifraud and reporting provisions of the Federal Securities Act in its reports for the first half and nine months of 1970.

The charge centers on Memorex's reporting of sales to its affiliates, Independent Leasing Corp. (ILC). (The name has been changed to ILC Peripheral Leasing Corp.)

The SEC is seeking an injunction to prevent Memorex from future violations.

Memorex has replied it is already reporting in the style requested by the SEC, and that the commission's request is "moot."

In the two reports in question, Memorex accounted as sales the shipments it had made to the affiliate, Memorex contended that as soon as the affiliate was capitalized the accounting practice would be proper.

The company's outside auditor, Arthur Andersen & Co., and the SEC disagreed with this.

Memorex acceded to their position, and is now accounting for

the shipments on an amortized basis.

The SEC complaint named Laurence L. Spitters, president

### Financial

and chairman of Memorex, and Gordon L. Pilcher, former financial vice-president, as well as the company. The SEC claims that the semiannual 9K report covering

the first six months was also misleading.

In a statement, Memorex said it and Andersen "spent many weeks with the SEC staff discussing the accounting method and format to be used for reporting transactions" with the independent leasing company.

The peripheral maker also said the preliminary annual report, annual report, and first quarter 1971 report were all in the form requested by the SEC.

The SEC said that by treating shipments to ILC as sales, Memorex overstated its six-month sales by \$2.4 million and its earnings by an unspecified amount. It also called the six-month statement misleading because it did not reveal that the figures included transactions with ILC.

The nine-month sales figure of \$79.1 million was overstated by \$14.1 million because of "unreported" sales to ILC, according to the SEC charge.

## Ampex Reports \$12 Million Loss for '71

REDWOOD CITY, Calif. — Asset write-downs and accounting changes have thrown Ampex deeply into the red for the fiscal year ended May 2. Total loss was \$12 million on sales of \$290.9 million.

A year ago Ampex made a profit of \$13.6 million, or \$1.25 a share, on sales of \$313.6 million. The asset revaluation and accounting changes resulted in pretax losses of \$9.5 million and \$10 million respectively. Both losses are being treated as part of

operations rather than extraordinary charges, Ampex said.

In the first nine months of the year, Ampex earned \$2.7 million, equal to 25 cents a share, while in the year-earlier period earnings had been \$11.4 million or \$1.06 a share. Ampex Chairman William E. Roberts had commented in the spring that

fourth quarter sales and earnings were below expectation.

In announcing the year-end figures, Roberts said expense reductions and organizational changes had been made at Ampex, and predicted the coming year would be profitable with sales beginning to grow again.

### Digitronics' Loss Laid to DP Unit

ALBERTSON, N.Y. — Fiscal year-end figures for Digitronics Corp. cast the Digitronics Division as villain, and Dislight Division as hero.

The 78%-owned subsidiary of North American Philips Corp. reported a net loss of more than \$8.8 million for the fiscal year ended March 31, compared with a profit of \$642,446, or 22 cents a share the previous year.

The Digitronics Division, which makes communications equipment, was responsible for all the red showing on the balance sheet, according to President

Robert G. Dettmer. The loss consisted of \$2.5 million from operations, plus extraordinary losses totaling \$6.3 million.

Fiscal 1971 sales dropped to \$16.6 million from \$17.6 million.

### Lawyer Views Trade Secret Protection

(Continued from Page 23) which he subsequently attempted to sell.

The Scott case was a criminal action, though, in a civil suit proof that the defendant knew the information was private and that he had no authority to sell it would have constituted a sufficient basis for liability.

Attorney J. Thomas Franklin is a member of the Proprietary Rights Committee of the Information Industry Association and general counsel for International Data Corp. and Computerworld, Inc.

## Nickels & Dimes

Computer Machinery Corp., the leading key-to-disk company, will be going public. CMC has filed with the SEC to register 1.2 million of its 3.8 million outstanding shares, of which it will offer \$50,000 for sale, while other holders will sell \$50,000. Maximum price is \$15 per share, and Merrill Lynch is underwriting the offer. Fund of Letters will sell 200,000 of its 300,000 shares.

Terminal-making Data 100 Corp. boosted revenues from \$731,018 in 1969 to \$2.7 million in 1970, but this failed to cover an increase in loss from \$819,068 to \$3.5 million. The loss includes marketing and start-up costs of over \$3 million and deferred income reserves of \$568,195 for machinery that may go off lease. Data 100 has some responsibility to its third-party leasing company if equipment is returned.

It was a good year for Cybernetics, with revenues increasing more than 60% and earnings doubling.

Operating revenues for the year ended March 31 were \$5.4 million, and earnings were \$360,697 or 38 cents per share, compared with revenues of \$3.4 million and earnings of \$175,612 or 21 cents per share last year.

Computer Dimensions compiled a 50% increase in revenues for the first quarter, from \$1.1 million to \$1.9 million. Earnings were \$20,000, compared with a breakeven for the year earlier period. Pricing changes and system improvements are expected to generate consistent and improved profits, the firm said.

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TRADE QUOTES

# Computerworld Stock Trading Summary

CLOSING PRICES THURSDAY, JULY 1, 1971

E C H	1971 RANGE	CLOSE JULY 1	WEEK CHG	WEEK PCT CHG	E C H	1971 RANGE	CLOSE JULY 1	WEEK CHG	WEEK PCT CHG

## SOFTWARE &amp; TOP SERVICES

D ADVANCED COMP TECH	1-13	1 5/8	0	+5.8	D MOORE BUS. FORMS	57-62	58 5/4	-1/2	-1.2
A APPLIED DATA RES.	1-13	5/8	-1/8	-16.6	N NASHUA CORP	29-47	45	-1 1/2	-3.4
O APPLIED LOGIC	1-13	5/8	-1/8	-16.6	O KEYHOLE & REYNOLD	77-55	55	-5	-7.7
O ARIES	1-2	1 1/4	0	0.0	O STAMPA REGISTER	19-25	20 1/4	+1/2	+1.4
N AUTOMATIC DATA PROC	14-85	6 1/2	+1/2	+8.8	O TAN PRODUCTS CO	8-16	14 5/8	+5/8	+4.6
O AUTO SCIENCES	8-13	3 1/4	-3/4	-15.0	O UMBRO	25-31	30 1/2	+1 1/2	+1.4
B BODINE DATA SYS	1-2	1 3/8	-1/2	-13.3	A VARSHAW MATHEMATICS	7-10	7 5/8	0	0.0
O BRANSON APPLIED SYS	1-1	5/8	-1/8	-16.6	N WALLACE BUS FORMS	19-26	27 1/2	-1/8	-0.5
D COMPUTER ENVIRON	1-2	3/4	-1/4	-25.0					
O COMPUTER NETWORK	3-11	3 3/4	+1/4	+5.5					
O COMPUTER PROPERTY	8-11	1 1/2	0	0.0					
N COMPUTER SCIENCES	8-17	13 5/8	+1/8	+0.8					
O COMPUTER TASK GROUP	1-3	1 1/2	-1/4	-14.2					
D COMP AUTOMOT REPORTS	3-16	8 1/2	0	0.0					
O COMPUTING US	6-12	3 1/2	-1/2	-15.0					
D COMPUTER & SOFTWARE	27-45	34 1/2	+5/8	+7.7					
O COMTESS	2-4	2 7/8	0	0.0					
O CONSOLE	8-8	3 5/8	+1/2	+2.7					
D CONSO. ANAL. CENT.	1-2	1 3/8	+1/8	+10.0					
O DATA AUTOMATION	1-3	5/8	-1/8	-20.0					
O DATA PACKAGING	1-10	5 3/4	+1/4	+5.5					
O DATAHATIN SERVICE	1-3	1 1/8	-1/8	-12.5					
D DATASAT	8-10	1 1/2	+1/2	+15.0					
O DIGITEX	1-4	1 5/8	-1/8	-12.5					
O EDP RESOURCES	7-16	11 1/4	+1/4	+3.1					
D ELECT COMP PROD	3-7	3 1/2	0	0.0					
N ELECTRONIC DATA SYS.	54-85	55 1/2	+4	+8.9					
N ENFORMATICS	13-23	14	-3/8	-2.6					
O KEANE ASSOCIATES	5-16	5 1/4	-3/8	-6.8					
O KEYFAX CORP	9-14	11	+1/8	+11.1					
A MANAGEMENT DATA	8-11	11 1/4	+5/8	+5.5					
O NATIONAL ESS INC	7-14	10	0	0.0					
O NAT. COMP. ANALYSIS	3-4	3	-1/2	-16.6					
O NAT. COMP. SERV.	2-4	2 1/2	0	0.0					
O PLANNING RESEARCH	12-14	12	+1	+8.3					
D PROGRAMMING & MTS	18-29	23 1/2	+1/2	+2.1					
O PROGRAMMING A SYS	2-4	2 1/2	+1/2	+12.5					
L PROGRAMMING SCIENCES	1-3	1 1/4	-1/4	-25.0					
O SCIENTIFIC RESOURCES	1-2	1 1/2	-1/2	-25.0					
O SOFTWARE SYSTEMS	2-2	1 3/8	0	0.0					
O TEST COMPUTER CENTERS	8-10	8	+1/2	+12.5					
O TOLLEY INTL CORP	3-8	7 1/4	+1/4	+5.5					
O UNITED DATA CENTER	2-3	2 1/4	-1/4	-16.6					
O UNIVERSITY COMPUTING	23-30	30 1/4	+1/2	+1.6					
A US SYSTEMS	12-17	17 5/8	+1	+16.0					
O U.S. TIME SHARING	2-3	3	0	0.0					
O VORTER CORP	2-5	5	0	0.0					

## PERIPHERALS &amp; SUBSYSTEMS

D ANDERSON/ROPP-HULT	24-48	45	+1/4	+0.5					
ALPHAMERICA	3-8	8	-1/2	-12.5					
N AMPEX CORP	17-25	14 1/4	+1/8	+0.7					
O ASTRODATA	3-2	1	-1/2	-25.0					
O ATLANTIC TECHNOLOGY	3-8	8 1/4	+1/2	+2.7					
A BULL/FRANZ & NEW	8-8	8 1/4	+1/2	+2.7					
N RUNNER-RAND	10-17	11 1/8	-1/8	-0.9					
A CALCOMP	21-33	22 1/8	-1/2	-2.2					
O CONTROTECH	8-9	5 3/4	-1/8	-1.4					
O COLLINS INSTRUMENTS	1-1	1	-1/2	-25.0					
O COMPUTER CORP	6-10	11 1/4	+1/4	+12.5					
A COMPUTER EQUIPMENT	8-7	7 1/8	-1/8	-1.1					
A COMPUTERS	12-20	11 3/4	0	0.0					
A CONSOL. COMPUTER LTD.	6-10	6 1/8	-1/8	-1.4					
A DATA PRODUCTS CORP	3-8	8	-1/2	-12.5					
A DATA TECHNOLOGY	8-8	8	-1/2	-12.5					
O DIGITRONICS	8-8	8	-1/2	-12.5					
O ELECTRONIC H & M	8-12	12 1/8	-1/2	-4.0					
O FARRI-TECH	3-4	3 3/4	+1/2	+12.5					
O FARRINGTON INFO	1-3	3	-1/2	-16.6					
O FOTO-MEN INC	1-1	1	-1/2	-25.0					
O INFOSYS INC	10-14	10 1/2	-1/4	-3.1					
O I FORMATION DISPLAYS	3-8	8 1/8	0	0.0					
A MANAGEMENT ASSIST	1-2	2	0	0.0					
A MARSHALL INDUSTRIES	17-27	16 1/8	-1/8	-0.7					
A NIELD ELECTRONICS	16-26	15 3/4	-1/8	-0.7					
O NORDING DATA SCI	23-27	25	-1/2	-2.0					
O ON LINE SYSTEMS INC	7-8	12 1/2	-1/2	-3.8					
O OPTICAL SCANNING	10-12	12	-1/2	-4.0					
O PHOTON	7-12	9 3/8	+1/2	+5.6					
O PHOTO-MATHEMATIC SYS.	8-15	14 1/2	+1/2	+3.5					
A POTTER INSTRUMENT	18-25	16 1/4	-1/4	-0.7					
O PRECISION INST.	7-18	13 1/2	+1 1/2	+11.1					
O RECOGNITION EQUIP	14-20	17 1/2	0	0.0					
O RECORD CORP	5-9	9	-1/2	-12.5					
F SANDERS ASSOCIATES	12-22	12 3/4	-1	-7.4					
D SCAN DATA	8-15	14 1/2	+1/8	+0.8					
O TALLY CORP.	10-18	18 1/2	+1/2	+2.6					
N TELER	15-22	15 5/8	+5/8	+4.1					
O VIATION	1-4	4	-1/2	-12.5					

## SUPPLIES &amp; ACCESSORIES

N ARANS-MILLER CORP	12-16	12 3/4	-1/4	-1.4					
O BALTIMORE BUS FORMS	8-10	8 1/2	-1/4	-4.8					
A BARRY MFG	8-13	8 1/2	+1/4	+5.0					
N DATA DOCUMENTS	18-20	21 1/2	+1/2	+2.3					
O DUPLEX PRODUCTS INC	8-10	8	-1/2	-12.5					
N ENNIS BUS. FORMS	9-13	9 5/8	+7/8	+10.0					
O ORANAH MATHEMATICS	9-35	28 1/4	+5	+11.8					
O ORANAH CONTROLS	8-15	12 5/8	+5/8	+4.2					
N HENKES	39-58	58 7/8	+5/8	+10.6					
N JAC COMPANY	18-22	12 1/2	+5/8	+4.8					

All statistics  
compiled, computed  
and formatted by  
TRADEQUOTES, INC.  
Cambridge, Mass. 02138

## Earnings Reports

## DATA GENERAL

Three Months Ended June 5

Shr E/In	\$1.18	\$1.08
Revenue	3,964,000	1,894,000
Tax Cred	.....	45,000
Earnings	415,000	820,000
9 Mo Shr	.42	.41
Revenue	8,576,000	4,422,000
Tax Cred	.....	200,000
Earnings	876,000	859,000

a-Based on Income before tax credit,  
b-Equal to 10 cents a share in the  
three months and 28 cents a share in  
the 36 weeks.

## DATA TECHNOLOGY

Year Ended May 1

	1971	1970
Shr Ernd	.....	\$8.18
Revenue	\$14,071,000	16,627,000
Spec Chg	435,000	80,000
Earnings		
(Loss)	(1,404,000)	2135,000

a-Based on Income before special  
charge, b-Equal to 11 cents a share.

## TEC

Year Ended April 30

(Loss)	\$8.06	\$8.35
Revenue	4,225,841	5,511,318
Earnings		
(Loss)	40,439	(236,800)

## GRANITE MANAGEMENT SERV.

Three Months Ended May 31

Shr Ernd	\$18	\$1
Revenue	8,193,000	6,669,000
Earnings	532,000	447,000

**FABRI-TEK**

## FABRI-TEK

Year Ended April 2

Revenue	\$18,671,263	21,204,568
Spec Cred	b32,470	...
Earnings		
(Loss)	(2,801,532)	422,068

a. Restated to reflect the acquisition of...

a-Revised to reflect the acquisition  
of a controlling interest in Fabri-Tek  
Micro-Systems Inc. b-Charge of a  
\$216,199 gain from purchase of  
debtless note less \$125,729 interest  
of goodwill on discontinued opera-

## NATIONAL COMPUTER SYSTEMS

Three Months Ended April 30

Three Months Ended April 30		
	1971	1970
Shr Ernd		
(Loss)	\$0.04	\$1.13
Revenue	908,000	778,000

## ENNIS BUSINESS FORMS

Three Months Ended May 31

ENNIS BUSINESS FORMS		
Three Months Ended May 31		
	1971	1970
Shr Ernd	.....	\$
Revenue	\$10,171,830	10,895,183

a-Excludes sales from Storm Printing  
Corp., acquired in July 1970.

## AMPEX

Year Ended May 2

AMPEX	
Year Ended May 2	
	1971
5hr Ernd	..... b\$1
Revenue	\$290,862,000 313,582,000

(Loss) (12,005,000) (11,265,000)

a-Based on income by company, b-Based on  
income before special charge, c-Equal  
to \$1.04 a share.

## dicom

industries

16 IN CASSETTE

MAGNETIC TAPE SYSTEMS

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## Computer Stocks Trading Index

Computer Systems

Software &amp; EDP

Peripherals &amp; Subsystems

Services

Supplies &amp; Accessories

Leasing Companies

C/W Composite Index

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